



Filed by Express Mail
(Receipt No. EL98018711145)
on November 12, 2003
pursuant to 37 C.F.R. 1.10.
by Linda E. Hastings
LINDA E. HASTINGS

Any fee due as a result of this paper, not covered by an enclosed check, may be charged on Deposit Acct. No.50-1290.

Priority Docket No. NECW 18.159 (100806-17346)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Atsushi NISHIZAWA
Serial No.: 09/751,979
Filed: December 29, 2000
Title: MANUFACTURING METHOD...
Examiner: George A. Goudreau
Art Unit: 1763

November 12, 2003

Director of the U.S. Patent and
Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

S I R:

In order to comply with discretionary rules 37 CFR §§1.97 and 1.98, attached hereto is a copy of Form PTO-1449 and copy of a document listed thereon. This document contains information in which the Examiner may consider to be important in deciding whether to issue a patent in the instant application.

Attached is a copy of a Taiwanese Office Action with Japanese and English translations dated July 16, 2003 in the Taiwanese Application, corresponding to the above-captioned US Patent Application.

As this statement is being filed with the filing of a request for continued examination under §1.114 and before the mailing of a first Office Action, no fee is due.

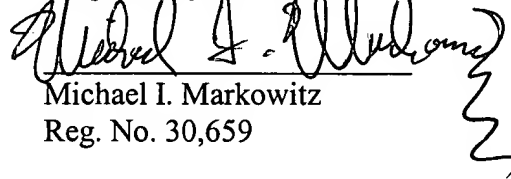
The present Information Disclosure Statement is being submitted in compliance with 37 §CFR 1.56 as an Examiner might consider any cited document important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the results of a complete search, and it is anticipated

that the Examiner in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104 (a), and in the course of such search will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is respectfully solicited.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,


Michael I. Markowitz
Reg. No. 30,659

Katten Muchin Zavis Rosenman
575 MADISON AVENUE
NEW YORK, NEW YORK 10022-2585
(212) 940-8800
DOCKET NO.: NECW 18.159(100806-17346)

Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

U.S. Department of Commerce
Patent and Trademark Office

Application No.	: 09/751,979
Filing Date	: December 29, 2000
First Named Inventor:	A. NISHIZAWA
Group Art Unit	: 1763
Examiner Name	: G.A. GOUDREAU
Attorney Docket No.	: NECW 18.159

Sheet 1 of 1

[illegible]

FOREIGN DOCUMENTS						
Examiner Initials	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)	Country	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YY/Y	Pages, Columns Lines Where Relevant Passages or Relevant Figures Appear

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-issue number(s), publisher, country, where published, source.	Applicant check here if English language translation attached
		TAIWANESE OFFICE ACTION DATED JULY 16, 2003	
Examiner Signature			Date Considered

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that Issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.1⁶ if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take .2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

As a result of examination of this case it is concluded:

1. In this case, "A method for the manufacture of semiconductor integrated circuits having contact windows and metal wire contact holes and a concave film on an intermediate layer film that are simultaneously formed and for utilization of this manufacturing method to manufacture semiconductor integrated circuits," the principal technological characteristic lies in the rate of forming and etching the organic film being higher than the intermediate layer rate when using an etching gas such as fluorine of an atomic weight more than three times that of carbon (CF_4 or C_2F_6) during etching of the intermediate layer and the embedded film in order to prevent a state of projection of the bottom of the groove.
2. However, this gas of a high F/C ratio such as CF_4 or C_2F_6 is seen in textbooks (cited case) to prevent polymer films from accumulating in the electric fluid and being etched. Moreover, there has also been detailed research on the relationship between this F/C ratio and piling up of polymer films during etching. For example, the polymer accumulation can be changed when H_2 or O_2 is added. Therefore, this case does not have any new effect by comparison to known technologies (cited case) and could easily have been perfected by those familiar with this technology. Therefore, this case does not have any inventive steps that increase its effect and does not have any inventive steps so that it does not conform to the provisions of Clause 2 of Article 20 of the Patent Act and should not be granted a patent.

3. Upon examining this application, it is found:
 1. This application, "Manufacturing method of semiconductor integrated circuit including simultaneous formation of via hole reaching metal wiring and concave groove in interlayer film, and semiconductor integrated circuit manufactured with the manufacturing method," has as its main technical characteristic that when the interlayer film and the organic film material that is embedded in the via hole are simultaneously etched, a state in which the base of the concave groove protrudes is prevented by ensuring that the etching rate of the organic film is greater than the etching rate of the interlayer film, by using as the etching gas one in which the number of fluorine atoms is at least three times the number of carbon atoms (CF_4 or C_2F_6).
 2. But the prevention of deposition during plasma etching by using an etching gas that has such an F/C ratio, such as CF_4 or C_2F_6 , is already seen in textbooks (the cited examples), and the relationship between this F/C ratio and the deposition of polymer film during etching is disclosed in said cited examples; for example, the polymer deposition can change by adding H_2 or O_2 . Therefore, upon comparing this application with the known technology (the cited examples), this application could easily have been completed by one who is familiar with said technology, and because this application does not constitute an advance in functional effects and because it lacks inventiveness, it does not comply with the provisions of article 20, paragraph 2 of the Patent Law, and therefore may not be granted a patent.